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Report of the

FAO WORKING PARTY FOR RATIONAL UTILIZATION OF TUNA RESOURCES IN THE ATLANTIC OCEAN

First session, FAO, Rome, 25-30 October 1963

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
ROME, 1963

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REPORT OF THE
FAO WORKING PARTY FOR RATIONAL UTILIZATION
OF TUNA RESOURCES IN THE ATLANTIC OCEAN
FIRST SESSION FAO, ROME: 25-30 OCTOBER, 1963

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, November 1963
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PREPARATION OF THIS REPORT

This document is the Report of the first session of the FAO Working Party for Rational Utilization of Tuna Resources in the Atlantic Ocean held in Rome, 25-30 October, 1963.

Distribution

FAO Fisheries Division
FAO Regional Fisheries Officers
Members of ACMRR
Members of the Expert Panel for the Facilitation of Tuna Research
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Pr 62-086me. Explains background, objectives and organization, results achieved, conclusions and recommendations obtained. Incl. lists of officers of the meeting, participants and working and information papers presented.

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I BACKGROUND

At the Symposium on Thunnidae convened by the Commission for Technical Cooperation in Africa South of the Sahara (CCTA) in Dakar, Senegal, 12 - 17 December 1960, a resolution was adopted whose operative clause reads:

"Recommends, that CCTA/CSA should take the initiative, either directly or through its member governments, to solicit the convening by the appropriate agency of the United Nations of a conference of plenipotentiaries from all of the nations, both African and extra-African, whose nationals are concerned in the development of these high seas tuna fisheries and the safeguarding in perpetuity of these resources, for the purpose of establishing among themselves an appropriate agency along the lines of the above-mentioned Commission ["Inter-American Tropical Tuna Commission"], which will have the functions of (a) collecting statistics of the fishery; (b) promoting large-scale research work on all these resources under consideration; (c) providing member governments with information on the situation and evolution of stocks; (d) formulating such recommendations as may be required to attend to their proper exploitation and conservation".

At its 16th Session, held in Lagos, Nigeria 3 - 11 February 1961, CCTA adopted a resolution transmitting a request to the Secretary-General of the United Nations requesting him to activate the above noted recommendation on an urgent basis because of the rapid development of the tuna fisheries in the tropical Atlantic.

The Scientific Secretary of CCTA, by letter of 22 March 1961, transmitted this request to the Secretary-General of the United Nations, who forwarded it by letter of 5 April 1961 to the Food and Agriculture Organization for appropriate action.

The World Scientific Meeting on the Biology of Tunas and Related Species, convened by FAO in La Jolla, California, 2 - 14 July 1962, considered this same subject and adopted a resolution (15) the operative clause of which reads; "The Meeting

"1) Suggests that the example set by the Inter-American Tropical Tuna Commission be followed elsewhere;

"2) Endorses, therefore, with satisfaction, Recommendation No. 16, of the Dakar Symposium with respect to the creation of a similar commission to cover the populations of tuna being fished in the Atlantic off Africa;

"3) Strongly urges the Secretary-General of the CCTA to explore all means which may lead to the creation of such a commission;

"4) Expresses its appreciation to the Secretary-General of the Commission for Technical Cooperation in Africa South of the Sahara (CCTA) for the actions he has taken in this respect;

"5) Asks the Director-General of the Food and Agriculture Organization of the United Nations to call together, at his earliest convenience, the planned Conference to deal with the matter on a diplomatic level".

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This subject was further considered by the Advisory Committee on Marine Resources Research of FAO at its first session in January, 1963, which dealt with the general subject of statistics and other records for conservation purposes in its Recommendation 1, sub-paragraph (c), whose operative section reads: "seek to stimulate the establishment of new international agencies or the extension of the jurisdiction of existing ones where the substantial character of the fisheries and the problems of conserving them require and justify the formulation of management programs to maintain their yields".

Pursuant to these actions, the Council of FAO, at its fortieth session, 24 June 1963 "having considered;

"1) that tuna fishing in the Atlantic is growing rapidly, while no coordinated action is being taken to study its effect upon the resources, so that there is no possibility of considering the need for action to conserve these resources and to exploit them rationally,

"2) that because of the far-ranging nature of the tuna stocks and the substantial participation of distant countries in the fishery, none of the existing regional bodies is able adequately to study the Atlantic tuna fishery as a whole,

"3) that the 16th Session of the Commission for Technical Cooperation in Africa South of the Sahara (CCTA), the World Scientific Meeting on the Biology of Tunas, the FAO Advisory Committee on Marine Resources Research and others have all expressed concern and a general desire for action for the conservation and rational exploitation of the tuna resources of the Atlantic,

"4) that before taking a decision on the necessary action, such as the calling of a conference of plenipotentiaries, as suggested by the CCTA, it would be well for those immediately concerned to attempt to reach agreement on certain preliminary questions, establishes under Article VI, paragraph 2 of the Constitution of the Organization a working party to be known as the "Working Party on Rational Utilization of Tuna Resources in the Atlantic Ocean".

The terms of reference established for this working party, set forth in the above cited resolution, called for recommendations, in particular, concerning:

"a) areas and tuna resources requiring urgent attention, including information which should be assembled concerning the resources and their exploitation;

"b) nature and scope of investigations which should be carried out, the execution of such investigations by research organizations existing or to be created; and the financing of such investigations;

"c) the kind of organization or organizations to discharge research, regulatory or other functions which might be established to further the conservation and rational exploitation of tuna resources;

"d) the precise objectives of any such organizations to be established;

"e) the relationship of any such organizations to FAO, to existing regional fishery commissions and councils and to each other;

"f) further action to be taken, including the possible convening of a conference of plenipotentiaries".

II THE WORK OF THE WORKING PARTY

The Working Party convened at FAO Headquarters, Rome, 25 - 30 October 1963. Delegations were present from Brazil, France, Japan, Nigeria, Portugal, Spain and the United States of America. A list of the participants is attached as Annex 1. It elected as Chairman Dr. J. L. McHugh of the United States of America and as Vice-Chairmen Mr. A. Takashiba of Japan and Dr. Fernando Lozano Cabo of Spain. Capt. Paulo de Castro Moreira da Silva of Brazil and Mr. E. N. C. Eziuzo of Nigeria were asked to serve with the Chairman and two Vice-Chairmen as members of a steering committee. Dr. W. M. Chapman of the United States of America was elected Rapporteur.

The Working Party invited to sit with it, as observers, delegations that had appeared and desired to participate, from the Federal Republic of Germany and Italy. The Working Party also seated, acting in his personal capacity, Dr. Emile Postel.

The Working Party adopted the following agenda.

1) Opening of the session.
2) Nomination of Chairman.
3) Election of officers.
4) Adoption of Agenda.
5) Delineation of duties of Working Party according to terms of reference.
6) Date and place of the second session of Working Party.
7) Election of the officers for the next session.
8) Other business.
9) Adjournment.

The Working Party had before it, under agenda item number 5, a series of background papers prepared by the staff of FAO and submitted by members before and during the session. A list of these background papers is attached as Annex 2. The Working Party benefitted particularly from two lectures delivered by participants in their private capacity. The first was from Dr. Klaus Tiews, Germany, and reported on the present status of bluefin tuna research, particularly in the Northeast Atlantic. The second was from Dr. Claude Maurin, France, and reported on findings in his laboratory on population differentiation in bluefin tuna and albacore tuna (germon or thon blanc) in the North Atlantic and Mediterranean by serological methods. The Working Party heard evidence on the following points:

1) Growth of Atlantic Ocean Tuna Fisheries

Although the statistics of tuna catch in the Atlantic were not in a condition to form the basis of accurate statements, it could be said that the total catch of tuna of all species in the Atlantic Ocean prior to 1955 was well less than 100,000 tons per year and in 1962, were more than 150,000 tons. About half the total catch

of all species of tuna in the Atlantic in 1962 were taken with long-line by Japanese flag vessels, resulting from the development of new fishing grounds.

2) Development of the Tuna Fisheries of Individual Nations and Areas

The fishery was still expanding at a rapid rate and gave every indication of continuing to do so.

a) United States of America

In the Western Atlantic exploratory fishing conducted by the United States during recent years had developed to commercial scale in the past two years. This fishery, primarily for bluefin and skipjack tuna, now gave every indication of expanding rapidly, with highly efficient gear diverted seasonally from the Pacific for this purpose, as well as by local gear used seasonally in other Atlantic fisheries.

b) Spain and France

In the Bay of Biscay and environs the type of fishing had changed in recent years from trolling to live-bait fishing, with substantial gain in efficiency and catch. This fishery now was experimenting with purse-seines, which possibly would improve efficiency and increase the catch. Although bluefin were involved, the primary increase in catch had been albacore (thon blanc). A rapid increase was taking place in the number and size of tuna fishing vessels in Spain and France. This fleet was supported seasonally by the local fishery and in other parts of the year by the developing fishery for yellowfin and skipjack (also bigeye) off West Africa. This fishery off West Africa had started since 1957 and in 1963 would involve 50 or more Spanish tuna vessels and undoubtedly more than that number of French vessels.

c) Portugal

In the past five years the fishery for tuna by Portugal in the Azores, Madeira and Cape Verde Islands had doubled in productivity and was still expanding rapidly. Production in Azores and Madeira was principally concerned with bigeye, but also involved albacore (germon or thon blanc), bluefin and some yellowfin. That in Cape Verde involved yellowfin and skipjack primarily.

d) Japan

The long-line fishery by Japanese vessels, beginning in 1956, had rapidly increased in yield, scope of activity, area covered, and number of vessels. The fishing effort was still expanding rapidly, being substantially more intense in the first half of 1963 than in the corresponding period of 1962. Intensity had been applied to yellowfin tuna most heavily at first, but with decreasing yield per unit-effort on yellowfin as the fishery progressed, intensity had been shifted to bigeye and albacore (germon or thon blanc) production, mostly in

higher latitudes, in the last few years. In the past two years more bluefin had been caught. The fishery worked fluidly and flexibly out of bases all around the Atlantic, for example in Brazil, Trinidad, Panama, Ghana, Ivory Coast, Sierra Leone, Senegal, Cape Verde Islands, Canary Islands, Italy and Yugoslavia. The vessels moved from one section of the ocean to the other, and from one species to another, as the season and fishing conditions dictated.

e) The African Coast

Aside from French, Spanish and Portuguese live-bait vessels in the African area, some Japanese and American flag vessels were recently engaging in fishing for surface school yellowfin, bigeye and skipjack in that area by this method. It was anticipated that vessels of other countries would be similarly involved.

f) South Africa

As a result of experimental fishing during recent years, a commercial fishery for tuna, mostly for bluefin, yellowfin, bigeye and albacore (germon or thon blanc), has now been initiated in South Africa.

Facilities

The cold-storage facilities needed for the support of all these fleets, which ten years ago had been restricted in West Africa to Senegal, now existed or were under construction in Canary Islands, Cape Verde Islands, Senegal, Sierra Leone, Liberia, Ivory Coast, Ghana, and Congo (Brazzaville), and in Brazil and Trinidad on the western side of the Atlantic. With these added and substantial support facilities there was good reason to expect the fisheries would continue to develop rapidly.

3) Markets and Consumption of Tuna

The market for tuna in the United States (which now uses about 360,000 tons of tuna in round weight per year) was increasing steadily at a rate of about 7 percent per year. The market for tuna in Europe was increasing at a somewhat greater rate than in the United States and has reached nearly 180,000 tons (in round weight) per year consumption. Consumption of tuna was increasing rapidly also in the West African countries, in Brazil and in the Antilles. Accordingly it appeared certain that increasing demand would continue to expand the fisheries for tuna in the Atlantic.

4) Movements of Tuna and Flexibility of Fishing Fleets

There was a complicated inter-effect among all these fisheries, caused by migrations of fish over large sectors of the ocean, or completely across it, and by flexible movements of fleets from one to another section of the ocean.

a) Bluefin Tuna (Thunnus thynnus)

Bluefin tuna tagged off the east coast of the United States had been repeatedly captured in the Bay of Biscay and off Norway.

Bluefin tagged off Norway had been recaptured in southern Spain. It seemed likely that all of the bluefin fisheries of the Eastern Atlantic were interconnected by the movements of the same population of this species through them. The newly developing bluefin fishery in the Western Atlantic undoubtedly would affect the success of those older bluefin fisheries to some extent by working on the same population of fish which at least partially supported those fisheries. For the same reasons the growing intensity of long-line fishing of bluefin by Japanese vessels in mid-Atlantic would affect all of these fisheries.

b) Albacore Tuna (Thunnus alalunga)

In the Pacific Ocean, a much larger body of water than the Atlantic, albacore (germon or thon blanc) were known, by repeated tag returns, to move freely across the whole North Pacific from Mexico to Japan. Although no tagging of albacore had been done in the Atlantic which could yield such results it seemed likely that regular migrations of similar dimensions could be expected in the North Atlantic. If this were so it would be likely that the Japanese longline fishery for albacore in mid- and Western Atlantic, which now had reached a substantial level, would have some effect on the increasing fisheries for this species in the Eastern Atlantic. This latter fishery for albacore, principally by Spain and France, was now producing about 40,000 tons per year.

c) Bigeye Tuna (Thunnus obesus)

Substantially nothing was known about the migratory habits of bigeye tuna in any ocean, and this species was now supporting a fishery of about 30,000 tons per year in the Atlantic, being fished not only in mid-ocean but also by live-bait fishing around the oceanic islands.

d) Yellowfin Tuna (Thunnus albacares)

Sufficient was known about the life-history of yellowfin to indicate that the fishery on surface school younger fish by live-bait and purse-seine methods were directly related to those of the fishery on larger fish by long-line. The reason was that yellowfin supporting the long-line fishery were only the older age classes of populations supporting the surface fishery. Although yellowfin were not so wide-ranging in their migrations as skipjack and bluefin, extensive tagging results in the Pacific indicated that this species commonly moved within a range of 500 to 1,000 miles. No tagging of yellowfin tuna has been done in the Atlantic.

e) Skipjack Tuna (Euthynnus pelamis)

Skipjack tuna, by tag returns in the Pacific and other lines of research, were known to be widely migratory in the Pacific and could be expected to be similarly wide-ranging in the Atlantic. No tagging of skipjack had been done in the Atlantic.

III CONCLUSIONS AND RECOMMENDATIONS OF THE WORKING PARTY

1) Areas and Resources Requiring Attention

Item (a) in the terms of reference of the Working Party instructs the Party to consider "areas and tuna resources requiring urgent attention, including information which should be assembled concerning the resources and their exploitation".

The Working Party took note of the rapid growth of fishing intensity in the tuna fisheries of the Atlantic Ocean. While the annual catch is already substantially more than 150,000 tons and still rising, the Working Party takes note with concern that the total catch of some species, e.g. yellowfin tuna caught by long-line, is dropping despite a steady increase in fishing effort, although this may be due to a shift in effort to other species. Many countries are gathering statistics on the catch and operation of the fishery, and some programs of biological research are in progress on a national basis and by regional organizations. These efforts, however, are neither complete on a species and area-wide basis nor sufficiently well coordinated to provide an understanding of the condition of the stocks and the measures necessary to ensure that the point of maximum sustainable yield is not exceeded.

Existing information makes it clear that the tuna resources of the Atlantic Ocean are far-ranging. Moreover some countries even rather distant from the Atlantic Ocean, participate substantially in the tuna fisheries.

The Working Party recommends that the areas and resources requiring urgent attention are the entire Atlantic Ocean and all the tunas and tuna-like fishes that inhabit this ocean. In order to define more precisely the list of fishes considered by the Working Party to comprise the term tunas and tuna-like fishes as here used, the Chairman appointed a committee on nomenclature composed of Dr. Vilela, (Chairman), Dr. Maurin, Dr. Lozano Cabo, Mr. Rosa and Mr. Gertenbach. The report of this committee was agreed to by the Working Party and is attached as Annex 3.

The apparent decline in abundance of long-line-caught yellowfin referred to above illustrates the urgency of the situation at least as far as such stocks are concerned. This may be due to a shift in effort to other species. Other stocks or species may already be similarly affected but adequate data are not presently available to indicate this one way or another. The research program, whether conducted by individual countries, existing organizations, or by an organization established solely for this purpose, should be coordinated on an Atlantic-wide basis.

For effective application of the results of research, statistics on catches and landings will not be sufficient. It will be necessary also to provide adequate biological statistics, which at a minimum must include data on catch and fishing effort by gear and vessel, 1/ by species, by size of fish, and by area. Tunas are caught by various kinds of gear and are identified by various names by the fishermen of different countries. Consequently, an important initial requirement

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1/ For a definition of "gear and vessel" see Annex 4.

will be to standardize and develop rational systems of measurement of fishing effort and nomenclature of tunas.

2) Nature and Scope of Investigations to be Carried Out

Item (b) in the terms of reference of the Working Party instructs the Party to consider the 'nature and scope of investigations which should be carried out; the execution of such investigations by research organizations existing or to be created; and the financing of such investigations".

Although some information is available on the biology of Atlantic tunas, the development of scientific knowledge has not everywhere kept pace with the rapid growth of the fisheries. It is necessary to continue and expand, to cover all species throughout their Atlantic habitat, programs of research in such fields of study as:

1) life history studies, including abundance, availability and assessment of the different tuna species and stocks, and clarification of the taxonomy of this group of fishes;

2) recruitment, growth, and mortality rates of the important commercial species;

3) spawning, egg and larva research;

4) racial and population studies;

5) behaviour studies, including local movements of tunas and their causes;

6) migrations of tunas;

7) gear selectivity studies;

8) distribution, migrations and movements of tunas in relation to biotic and hydrological factors, such as water circulation and water masses, gradients in physical and chemical properties, and the topography of the ocean bottom.

To derive indices of tuna availability and abundance, and to measure the effects of fishing upon the stocks, a detailed and coordinated system of data collection on catches, fishing effort, and biological statistics must be put into effect as soon as possible. As a minimum requirement, the kinds of information listed above will be necessary. This will require a central collecting system for obtaining and submitting the necessary fishing information on a current basis.

As noted in the considerations adopted by the FAO Council in establishing the Working Party, no appropriate organization now exists which represents all countries substantially engaged in the Atlantic tuna fisheries. The Working Party has considered several interim and longer-term forms in which this research might be organized which would remedy this lack. These considerations are set out in the fourth subheading under Conclusions and Recommendations.

3) Financing of Investigations and other Work

Item (b) of the terms of reference of the Working Party instructs the Party to make recommendations concerning the financing of investigations of the tuna resources of the Atlantic Ocean.

As noted in the resolutions of CCTA and the World Scientific Meeting on the Biology of Tunas and Related Species cited by the FAO Council in establishing the Working Party, the only body in the world with a history of research on tunas and their fisheries as comprehensive as that noted above involving several nations, several types of fishing, and broad geographic coverage is the Inter-American Tropical Tuna Commission. Accordingly the Working Party examined the financial history of IATTC as a guide to what scale of financing might be appropriate to the programs of research in the Atlantic.

The Inter-American Tropical Tuna Commission conducts research on a fishery harvesting primarily two species of tuna (yellowfin and skipjack), participated in substantially by eight countries, utilizing three main types of fishing (pole-and-line, purse-seine and long-line), covering an ocean area about 4,000 miles long and 500 miles wide, yielding about 180,000 tons of yellowfin and skipjack per year valued at about U.S. $ 40,000,000. The IATTC considers that an annual budget of about U.S. $ 600,000 is a minimum for adequate performance of its responsibilities. This is about 1.1/2 percent of the landed value of the catch from the eastern Tropical Pacific.

The Working Party was unable to assess accurately what the program of expanded research in the Atlantic might cost. In view of the fact that more species are involved in the Atlantic fisheries, the area to be covered is greater and more varied, the number of countries fishing is larger, and the problems more complicated, it considered that the cost of the Atlantic-wide tuna research program of similar comprehensiveness would, in total, exceed that for the IATTC program. As the total catch of tuna in the Atlantic is now somewhat more than from the IATTC area, the relation of research cost to landed catch value found in the IATTC might form an appropriate guideline for Atlantic planning, if a similar organization is established in the Atlantic.

Several methods of financing such programs were discussed by the Working Party, and their advantages and disadvantages were considered.

One method might be to adopt the system used by IATTC, in which the contribution of each nation is based pro rata on its utilization of tuna from the area of concern. The minimum contribution is U.S. $ 500. The Commission approves a budget each year, which is broken down according to this formula and submitted to member governments for funding. This method presents certain difficulties in the Atlantic, for the catch of each nation fishing Atlantic tunas is not always similar to the utilization of tunas by that nation. For example, the United States presently catches only about 3 percent of the total Atlantic tuna harvest, but consumes at least 25 percent. Japan, which takes at least 50 percent of the total Atlantic tuna catch, consumes only a small fraction of this amount.

To reach a more equitable division of the cost, a somewhat more complex formula might be used. For example, the total cost

might be divided in two parts, one part of which would be contributed by each nation on the basis of catch, and one part of which would be contributed on the basis of consumption. This whould not affect the total contribution of a nation which uses all its catch in its domestic trade, but it would provide more equitable contributions from nations which catch tuna but do not consume it, or consume tuna but do not catch it in significant quantity.

In determining the contribution to be made by each member nation, allowance should be made for funds and facilities already devoted to Atlantic tuna research. On the other hand, it may be necessary also to provide special arrangements for certain nations, which may not have sufficient scientific staffs or funds to play their full part in the program, either through expanding or continuing their present programs or initiating new programs which would fit into the overall research needs.

Another method would be for each individual interested country to conduct its portion of the overall program on its own funds. In such instances such countries might transmit the results of such programs of research to an existing organization which could publish them and thus make them available to all countries whether members or not.

To sum up, if it is decided to establish a Commission (as the African countries requested at the CCTA conference on tuna in Dakar in 1960 and as recommended by the World Scientific Meeting on the Biology of Tunas and Related Species in La Jolla in 1962, in its Recommendation 15) to conduct or coordinate investigations of the tuna resources of the Atlantic Ocean, the Working Party recommends that an equitable formula for financing be developed. This formula should give due consideration to the catch, landings, and consumption of tuna by member nations. It should also consider the studies already being conducted by certain member nations, and the need to support these or compatible needed investigations by other member nations which do not yet have sufficient facilities and experts to study their tuna resources adequately.

4) Kind of Organization or Organizations for Atlantic Tuna Investigations

Item (c) in the terms of reference of the Working Party instructs the Party to consider "the kind of organization or organizations to discharge research, regulatory or other functions which might be established to further the conservation and rational exploitation of tuna resources".

In the absence of information available to the Working Party demonstrating a need for regulation in any of the Atlantic tuna fisheries at this time, the Party gave consideration under this term of reference only to the kind of organization or organizations required to initiate, carry out and correlate the broad programs of research indicated in the second Conclusion and Recommendations in sub-heading set out above.

Three of the members of the Party were particularly desirous not to form a new organization if the work could be done by existing means, either national or intergovernmental. There were two main

reasons for this feeling. The first was a strong desire for overall economy in funding national and international fishery investigations. The second was the equally fervent desire to save the time of investigators so that they could do science rather than continually attend committee meetings of international fishery organizations. With these things in mind these members suggested:

a) That the biological investigations set out in Recommendation 2 be financed and done individually by each country interested in the fisheries for tuna and related species in the Atlantic and that the results of these investigations should be transmitted to ICES where they could be requested to publish annually and thus be available to all countries, including those not members of ICES;

b) That the statistics of catch and landings should be prepared by FAO Fisheries Division on the basis of data sent to it by each nation harvesting tuna and related species in the Atlantic;

c) That the biological statistics similarly should be prepared by the appropriate section of FAO Fisheries Division in accordance with information received from the interested countries. This information should follow from a questionnaire drafted by this Working Party; and

d) The funds necessary for carrying out points (b) and (c) above should be borne by the regular budget of FAO and the appropriate delegations should propose this for inclusion in the next budget (1964-65) during the forthcoming biennial Conference of FAO.

The Working Party notes that the important initial requirement will be to standardize and develop rational systems of measurement of fishing effort and nomenclature of tunas as stated in the first subheading under Conclusions and Recommendations set out above. Urgently needed are compatible systems among governments for collecting and recording catch, landing, and fishing effort statistics required to assess the status of the several species and stocks. It recommends that FAO Fisheries Division, through its statistical service, its Expert Panel on Tuna Research, and otherwise, undertake this work and the collection and dissemination of statistics actually gathered by governments.

Many of the governments already have tuna research programs of greater or lesser magnitude. These should be continued and in most cases augmented. Special attention needs to be given so that able scientists favorably located for particular research projects receive adequate funding for their work. There are localities where research needs to be instituted on a local basis where local scientists do not exist and where there are no funds to support their work if they did exist. The planning and results of the research of all these separate entities requires to be collated in a central organization (whether existing or new). This would enhance their overall value and make most efficient the operation of the Atlantic-wide tuna research program.

There are several intergovernmental regional fishery organizations in the Atlantic area. No one of them has competence over all this ocean, but the International Council for the Exploration of the Sea appears able to act in a substantial manner in coordinating and collating Atlantic tuna research, at least at the present time in certain parts of the eastern Atlantic. Its Scombriform Fish Committee has been programming and recording the results of tuna research for many years, and its Working Group on Bluefin Tuna has produced excellent preliminary results on limited aspects of the bluefin tuna problems. However,

a) ICES does not presently have programs of the same nature respecting other species of tuna;

b) South American, African, North American and Asian countries which conduct a substantial share of the Atlantic tuna catch do not belong to ICES at the present time (although membership is open to them).

ICES can be expected to be of material assistance in augmenting and collating present tuna research by its members. However, several members of the Working Party felt that its regional character, while giving it much strength for its regional tasks, limited its effectiveness in handling ocean-wide tuna research problems of the kinds under consideration.

The second point of view expressed by several members of the Working Party concerning the approach to the Atlantic tuna problem favors the creation of a special organization for that purpose. In this connection it was pointed out that two general forms of intergovernmental fishery commission are used in various parts of the world. Both are formed under conventions among the interested countries.

The first form (exemplified by the International Commission for the Northwest Atlantic Fisheries and by the International North Pacific Fisheries Commission) limits the duties of its staff, and joint expenses, to secretarial and restricted statistical functions, leaving the research to be done by the member nations. The Commission meets, jointly plans and collates research, and makes recommendations based on its finding to the member governments.

The second form (exemplified by the Inter-American Tropical Tuna Commission, by the International Pacific Halibut Commission, and by the International Pacific Salmon Fisheries Commission) used a professional scientific staff hired by a Director of Investigations for the Commission to conduct its research, all of which is paid for from joint funds provided by the members. The Commission meets, considers the program, budget and research results, and makes recommendations based on the research findings of its staff to member governments.

Both forms of international fisheries commission appear to be handling the problems assigned to them with reasonable effectiveness and efficiency. and to the general satisfaction of the member countries.

The Working Party drew no conclusion as to which form would be best to handle Atlantic tuna research, recommending this subject for

consideration by a conference of plenipotentiaries which might negotiate a convention establishing a Commission, if it is decided to call a conference for this purpose.

5) Precise Objectives of Such Organization

Item (d) in the terms of reference of the Working Party instructs the party to consider "the precise objectives of any such organization to be established".

The Working Party recommends that the precise objective of any such organization should be to provide the interested parties with factual information and its interpretation required by the member nations to maintain the tuna resources in a condition to produce maximum sustainable yields. This would permit the member nations to adopt appropriate measures for their nationals.

Attention is called to the relatively long time interval that necessarily comes between the beginning of scientific work and the application of its results to useful purpose. Moreover, experience has shown that there is a certain threshold of financing for fishery investigations, below which solid results applicable to management for maximum sustainable yield cannot be achieved.

The Inter-American Tropical Tuna Commission had available to it, when its work began, about 20 years of good catch and effort statistics. Still it required five years of intensive research before IATTC was able to make the first recommendations to member countries relative to the status of the tuna stocks within its purview.

No such long records of catch and effort statistics are available in the largest and most rapidly growing Atlantic tuna fisheries throughout the range of the species.

The Working Party recommends that, in making plans for action, the appropriate parties give due weight to this necessary time lag in scientific accomplishment.

6) Relationship to FAO, Existing Regional Fishery Commissions and Councils and to Each Other

Item (e) in the terms of reference of the Working Party instructs the Party to make recommendations concerning "the relationship of any such organization to FAO, to existing regional fishery commission and councils and to each other".

Two distinct views existed in the Working Party as to how future Atlantic tuna research should be organized.

France and Spain expressed on view, set out in the first part of Recommendation 4. This view would have the research done by the interested countries without any new organization. The International Council for the Exploration of the Sea would be requested to publish annually the results of those studies transmitted to it. FAO would be expected to prepare the statistics of catch and landings on the basis of data sent to it by nations harvesting tuna and related species in the Atlantic and the biological statistics would similarly be prepared by FAO in accordance with information received from the interested countries. Japan afterward supported this view.

These members particularly recommended that this work should be done within the regular budget of FAO.

Brazil, Nigeria, Portugal and the United States expressed the view that a new organization was required to plan, collate, organize, and use the results of a much expanded program of tuna research on an Atlantic-wide basis. Their views are set out in the latter part of Recommendation 4. These views would require negotiation of a convention establishing such a new organization by a conference of plenipotentiaries convened for that purpose.

The Working Party is unable to prejudge the relationship which this conference of plenipotentiaries would establish in that convention between the new organization, FAO and existing regional fishery commissions and councils and to each other.

The Working Party recommends that if such a new international tuna commission for the Atlantic Ocean is established under a convention among interested nations that its relationship with FAO should be established by an agreement between the commission and FAO under article XV of the FAO Constitution or by other suitable means available in the FAO Constitution and mutually agreeable.

7) Further Action to be Taken

Item (f) in the terms of reference of the Working Party instructs the Party to consider "further action to be taken, including the possible convening of a conference of plenipotentiaries".

The Working Party believes that it has discharged all its duties but one, namely, the following directive:

"1. Purpose

> The purpose (and terms of reference) of the Working Party shall be to study, in consultation with appropriate and interested commissions and other international bodies, the need for action to conserve the tuna resources of the Atlantic Ocean while ensuring that they are exploited rationally and to make recommendations in regard to such action". (underlining supplied)

In accordance with point 6 of the statutes of the Working Party, if a second meeting is required other member nations, associate members and international bodies interested in the tuna fisheries of the Atlantic should be invited to attend and participate as observers. Their observations should be made a part of the record of such meeting. The selection of such added observers can be arranged by consultation between the Chairman and the Director-General of FAO.

A second meeting of the Working Party might have the sole purpose of discharging the responsibility of consulting with international bodies. If this were the case, the Working Party recommends that, if possible, this be done by correspondence. To this end the Working Party requests the Director-General to proceed as follows in complying with paragraph 8 of the Statutes of the Working Party: when circulating the Working Party's report and recommendations to all member nations and associate members of the Organization he should circulate

as well all relevant background documents. The Director-General, in circulating these documents, should request comments from all those member nations and associate members of the Organization who are concerned with tuna fisheries in the Atlantic Ocean and from the following Commissions and Councils:

International Commission for the Northwest Atlantic Fisheries
International Commission for the Scientific Exploration of the Mediterranean Sea
Northeast Atlantic Fisheries Commission
International Council for the Exploration of the Sea
General Fisheries Council for the Mediterranean
Regional Fisheries Commission for West Africa
Regional Fisheries Commission for the Southwest Atlantic
Commission for Technical Cooperation in Africa South of the Sahara
International Cooperative Investigations of the Tropical Atlantic, IOC
Inter-American Tropical Tuna Commission

All comments received by a reasonable date, to be determined by the Director-General, should be collated and communicated to the member nations of the Working Party and any observations they may offer should also be included in the documentation associated with the report. All this documentation should be made available not only to all member nations and associate members of the Organization and to the interested international organizations but also to nations not members of FAO but members of the United Nations or of other specialized agencies.

The Working Party recommends that one or more of the interested nations might propose a conference of plenipotentiaries at an appropriate time to make arrangements for immediate joint action to implement whatever measures are considered appropriate and necessary.

IV REMAINDER OF AGENDA

Having concluded its work under item 5 of its agenda, as reported in Sections II and III above, the Working Party disposed of the rest of its agenda in the following manner.

With respect to the date and place of a second session, it was decided that if a second session of the Working Party is found to be necessary by the Chairman of the Working Party and the Director-General of FAO in consultation it will be called at such date as they find to be convenient and held at FAO Headquarters, Rome.

Pursuant to the statutes of the Working Party the Chairman would serve in that capacity until the election of a new Chairman.

Delegations and officers of the Working Party gave high praise to the efficiency and diligence with which the FAO Fisheries Division staff had prepared for the meeting and aided in its conduct. Particular mention was made of Mr. Horatio Rosa Jr. in his role as Secretary, Miss Clare de Freitas in handling the documents, Mr. Fred Popper for assisting throughout the meeting with valuable suggestions and to Dr. Mario Ruivo and Mr. L.P.D. Gertenbach for contributions made during the meeting.

The meeting adjourned at 4.45 p.m. 30 October 1963.

ANNEX 1

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Vice-Chairmen	- F. Lozano Cabo (Spain) - A. Takashiba (Japan)
Rapporteur	- W. M. Chapman (U.S.A.)

STEERING COMMITTEE

The Delegations of Brazil, Japan, Nigeria, Spain

SECRETARIAT

Technical Secretary	- Horacio Rosa, Jr.
Administrative Secretary	- Mary Clare de Freitas
Assistants	- Rhoda Capparucci Gloria Misserville Beryl Peate
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Interpreters	- Elvira Bonaccorsi Henry Lewis-Comas Hilda Moral-Lopez Maria Roverano Sara Sheftel

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J. G. Simpson
Biologist
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Fisheries Biology Branch

ANNEX 2

LIST OF PAPERS

1. Working Papers

WPUTR/1/WP	1	Agenda
	2	List of participants
	*3	Statement by the United States Government
	*4	Japanese Tuna Fishery in the Atlantic Ocean
	5	List of papers
	*6	Roughly Estimated Catch of Tuna in the Atlantic during 1963, in Short Tons
	*7	Nota sobre la fluctuación de las capturas de atunes en las almadrabas de las costas suratlántica española y atlántica marroquí y sobre la productividad atunera de las mismas
	8	Extrait du rapport sur la production de l'industrie des pêches maritimes en 1962 Thons
	9	Recommendation No. 1
	10	Recommendation No. 2
	11	Recommendation No. 3
	12	Recommendation No. 4
	13	Report of the Committee on Nomenclature
	14	Recommendation No. 5
	15	Recommendation No. 6
	*16	Statement by the United States Delegation
	17	Recommendation No. 7

2. Information Papers

WPUTR/1/INF	1	Notes for information and consideration of the members of the Working Party and their delegations
	2	Information for delegates
	3	Comparison and abstracts of selected conventions establishing fisheries commissions
	4	Proceedings of the World Scientific Meeting on the Biology of Tunas and Related Species, Vol. 1, Report
	5	Proceedings of the World Scientific Meeting on the Biology of Tunas and Related Species, Vol. 3, Methodological and Experience Papers
	6	A world-wide reporting system for tuna fishery statistics
	7	Recommendations approved by the Advisory Committee on Marine Resources Research (ACMRR), first session, pertinent to the work of the Working Party for Rational Utilization of Tuna Resources in the Atlantic Ocean (WPUTR)

*These are the only papers available for distribution

ANNEX 3

REPORT OF THE COMMITTEE ON NOMENCLATURE

The Working Party set up under the chairmanship of Dr. Vilela a restricted group to determine the nomenclature of species coming within its terms of reference. The group accordingly submits the following recommendation:

A. Species coming within the terms of reference of the Working Party are the Scombriformes with the exception of the genus Scomber and the families Trichiuridae and Gempylidae, which may be fished in the Atlantic Ocean. For convenience we have divided these into three groups: tunas, bonitos and miscellaneous, disregarding strict scientific procedure in the interests of simplicity, and without prejudice to the legal status of any name in any nation. Their common names in English, French and Spanish are given below.

B. The tunas referred to are the Scombriformes belonging to the below-mentioned genera. 1/

Thunnus	Bluefin, Thon rouge, Atún
Germo	Albacore, Germon, Albacora
Neothunnus	Yellowfin, Albacore, Rabil
Parathunnus	Big-eye, Thon obèse, Patudo

C. The bonitos referred to are the Scombriformes belonging to the following genera:

Sarda	Bonito, Bonite à dos rayé, Bonito
Katsuwonus	Skipjack, Bonite à ventre rayé, Listado
Euthynnus	Little tunny or black skipjack, Thonine, Bacoreta
Auxis	Frigate mackerel, Auxide, Melva

D. By "miscellaneous" we understand Scombriformes belonging to various families and fished at the same time or with the same gear as tuna, viz:

Orcynopsis	Plain pelamid, Palomète, Tasarte
Acanthocybium	Wahoo, ----------, Serra
Scomberomorus	King-mackerel, Maquereau-bonite, Carita
Xiphias	Swordfish, Espadon, Pez espada
Tetrapterus	Spearfish, Espadon, Marlin
Makaira	Marlins, Espadons, Marlinos
Istiophorus	Sailfish, Voilier, Pez vela

1/ At the World Scientific Meeting on the Biology of Tunas and Related Species (La Jolla, 1962) the following names were decided upon:

Thunnus	Thunnus thynnus
Germo	Thunnus alalunga
Neothunnus	Thunnus albacares
Parathunnus	Thunnus obesus and Thunnus atlanticus
Katsuwonus	Euthynnus pelamis

ANNEX 4

FISHING VESSELS AND GEAR

By fishing vessel is meant all kinds and types of craft, mechanically or otherwise propelled, including inter alia, factory ships, powered boats, sail and rowboats, canoes, rafts, etc., used in the Atlantic Ocean to catch the kinds of fish specified in Annex 1.

By gear is meant all types and kinds of methods and devices used to catch the kinds of fish specified in Annex 1 in the Atlantic Ocean, including mobile or fixed traps constructed of any kind of material with or without auxiliary boats, and such devices and methods used with vessels as live-bait (pole-and-line), longlines, seines and other nets, and any other fishing device or method not specified herein.